



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,320	10/15/2003	Mark A. Clamer	05918-340001 / VGCP No.	8855
26161	7590	12/07/2005	6	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER SANDY, ROBERT JOHN	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

This is a *final* Office action responsive to the reply received on 30 September 2005.

- Claims 4, 18-23, 29, 38-44, 56-59 and 69-75 were canceled.
- Claims 1, 27, 48 and 61 were amended.
- Claims 76-79 are new.
- Claims 1-3, 5-17, 24-28, 30-37, 45-55, 60-68 and 76-79 are currently pending.
- An amendment to the Substitute has not been approved for entry.

Specification

The amendment to the Specification filed 30 September 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. Applicant states 'Obvious errors in the Specification at page 3, line 4., page 4, line 7., page 4, line 9., page 4 line 12; and page 4, line 14 have been corrected by replacing "millimetres" by "mil". 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The inclusion to amended the originally filed disclosure changing "millimeters" to "mils" is improper and deemed new matter since the originally filed disclosure did not support the "mils" unit of dimension.

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

In view of applicant's amendment of the independent claims providing antecedent basis for "each head having a lower surface forming a crook for retaining loops", the rejection under 35 U.S.C. 112, second paragraph, to claims 5, 16, 17, 23, 30, 36, 37, 44, 50, 54, 55, 59, 64, 67 and 68 indicated in the prior Office action has been withdrawn.

Applicant's arguments regarding claims 1, 27, 48, 61, and their respective dependant claims, with respect to Akeno ('969) not meeting the claimed dimensional ranges required in the claims because Akeno's drawing are not-to-scale, this arguments are not found persuasive. However, since the claims use phrases such as "is less than", "of at least", "at least about", "is greater than", "of less than", "of between about", and "at least", the claims are considered to meet what

Art Unit: 3677

applicant considers as a not-to-scale drawings since exact measurement dimensions are not required in the claims.

Applicant's argument regarding claims 10 and 35, pertaining to Akeno in view of Takizawa ('720) is not found persuasive for the reason mentioned above regarding claims 1 and 27.

Applicant's argument regarding claims 64 and 69-71, pertaining to Akeno is not found persuasive for the reason mentioned above regarding claims 61.

Applicant's argument regarding claims 24, 45 and 60, pertaining to Romanko not having the subject matter of "V shaped cutout between the heads" and "not disclose not even suggest any mold release factor" is not found persuasive since this subject matter does not concern claims 24, 45 and 60, and for the reasons mentioned above with respect to claims 27 and 48.

Applicant's traversal the construction of claim 14 as a product-by-process claim is not found persuasive. Applicant remarks pertaining to "severing resin yields a different surface microstructure than, e.g., extruding or molding, and therefore connotes a structural attribute of the fastener element surfaces" is appreciated. However, applicant's originally filed disclosure provides no criticality to the structural attributes as of a result of having the side surface defined by severed resin. Furthermore, applicant acknowledges, on page 15, that "fastener elements with broad sides that are cut rather than molded" was known as an alternative process in the art as demonstrated by Nestgard (U.S. Patent No. 4,895,569).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

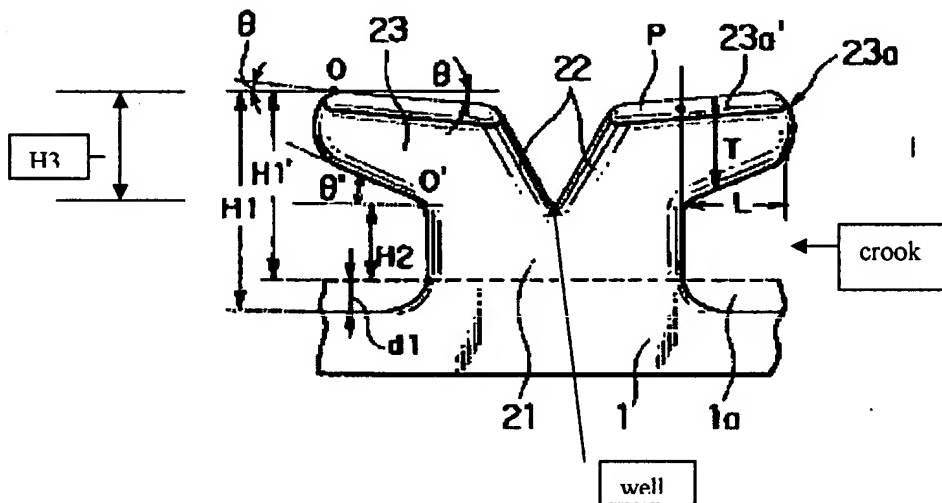
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-9, 11-13, 15-17, 25-28, 31-34, 36, 37, 46-49, 51-55, 61-63, 65-68, and 76-79 are rejected under 35 U.S.C. 102(b) as being anticipated by Akeno et al. (U. S. Patent No. 5,781,969).

Akeno et al. ('969) discloses a touch fastener component (see Figures 1-10) having a base (1) and an array of fastener elements (23; Fig. 1), each of the fastener elements comprising:

Art Unit: 3677

a stem (21) extending outwardly from and integrally with the sheet-form base, and two heads (23) extending in essentially opposite directions in an engagement plane from a distal end of the stem to corresponding tips, each head having a lower surface forming a crook for retaining loops, the fastener element having an upper surface that defines a well (see Fig. 4B below)

FIG. 4B

between the heads; wherein a height (equal to H2) of a lowermost extent of the well, measured from and perpendicular to the sheet-form base, is less than 60 percent of an overall height (H1) of the fastener element, measured perpendicular to the sheet-form base;

(concerning claim 2) the height of the lowermost extent of the well (H2) is at least about 70 percent of an overall height (H3) of one of the two oppositely-directed heads, measured perpendicular to the base from the tip of the head to an uppermost extent of the head;

(concerning claims 3, 28, 49, 63) wherein each fastener element has an overall length between opposite extents of the heads, measured parallel to the base, of at least 1.8 times the overall height of the fastener element;

(concerning claims 6, 31, 51, 65) an overall height of one of the two oppositely-directed heads, measured perpendicular to the base from the tip of the head to an uppermost extent of the head, is less than 60 percent of the overall height of the fastener element;

Art Unit: 3677

(concerning claims 7, 32) Fig. 4B clearly demonstrates a ratio of an overall length of the fastener element, measured parallel to the sheet-form base in the engagement plane, to the height (H2) of the lowermost extent of the well, is greater than 2.5;

(concerning claims 8, 33, 52, 61) Fig. 4B clearly demonstrates wherein each fastener element has a mold release factor, defined as a ratio of a difference between a minimum solid length of the stem, measured parallel to the sheet-form base in side view, and a maximum solid length of the fastener element, measured parallel to the sheet-form base in side view above an elevation corresponding to the minimum solid length, to the minimum solid length of the stem, of less than 0.1 (e.g., as low as zero);

(concerning claims 9, 34, 53, 66) wherein at least one of the heads has an overall height, measured perpendicular to the sheet-form base from a lowermost extent of the tip of the head to an uppermost extent of the head, that is greater than half of an overall height of the fastener element, measured perpendicular to the sheet-form base;

(concerning claim 11) the lower surfaces of the heads are arched (near upper portion of stem);

(concerning claim 12) the heads and stem form a unitary molded structure;

(concerning claim 13) the heads have surfaces of resin cooled against mold surfaces (via 7b);

(concerning claim 15) the stem and heads have side surfaces (Fig. 4C) lying in parallel planes;

(concerning claims 16, 36, 55, and 67, so far as definite) the crooks (portion defined by length L) overhang surfaces of the stem;

(concerning claims 17, 37, 55, and 68) the crooks overhang stem surfaces that extend at an inclination angle of between about 20 and 30 degrees (i.e., angle theta is 0 to 35 degrees; column 10, line 32) with respect to a normal to the base;

(concerning claims 25, 46) the fastener elements are arranged in a density of at least 350 fastener elements per square inch (i.e., "250/cm²", col. 11, line 48) of the base;

(concerning claims 26, 47) the fastener elements together cover at least 20 percent ("35%", col. 11, line 46) of an overall surface area of the base from which the fastener elements extend.

Art Unit: 3677

(concerning claim 27) wherein a ratio of an overall height of at least one of the heads, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the head, to a height of a lowermost extent of the well, measured from and perpendicular to the sheet-form base, is greater than 0.7;

(concerning claim 62) the mold release factor is less than 0.05 (e.g., as low as zero); and

(concerning claim 76-79) the height of the fastener element is measured at a molded upper surface of the fastener element.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 14, 24, 30, 45, 50, 60, and 64, are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969). Akeno et al. ('969) discloses the claimed fastener component except for describing the dimensions of the fastener component, wherein the dimensions are representative of:

(concerning claims 5, 30, 50, 64) wherein a ratio of an overall height of each crook, measured perpendicular to the sheet-form base from a lowermost extent of the corresponding tip to an uppermost extent of the crook, to an entrance height measured perpendicular to the sheet-form base below a lowermost extent of the corresponding tip, is greater than 0.6;

It would have been obvious and within routine skill to one of ordinary skill in the art at the time the invention was made to have adjusted each of the overall dimensions of the fastener component features since dimensional characteristics are routinely selected according to the fasteners intended use. Fastener characteristics regarding overall heights of fastener elements, fastener element heads, and crook, are adjusted to a higher height in applications where the fastener component may be embedded in a foam substrate of an upholstered chair for subsequently attaching a fabric cover thereto. The overall heights of the fastener element characteristics are

Art Unit: 3677

adjusted to smaller heights for use as conventional touch fasteners for providing a fabric like texture to garment closure fasteners.

Concerning claim 14, Akeno et al. ('969) discloses the claimed fastener component except for wherein the stem has opposing surfaces defined by severed resin. Claim 14 is directed to a product-by-process claim wherein the process relied upon is a "severed" step in producing the opposing surfaces of the stem. This limitation is not given an patentable weight since the structural limitations of the claimed product are met. by Akeno et al. ('969). It has been held that if the product defined in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made from a different process. See *In re Thorpe*, 77 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985).

Claims 24, 45, and 60, are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969) in view of Romanko et al. (U. S. Patent No. 6,484,371). Akeno et al. ('969) discloses the claimed fastener component except for wherein the component further comprising a backing material laminated to a side of the base opposite the fastener elements. In view of Romanko et al. ('371), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have to have provided a backing material laminated to a side of the base opposite the fastener elements of Akeno et al. ('969), since Romanko et al. ('371) describes and shows a fastener 30 (see Figs. 3a-3g) having a backing material including loops 37, film layer 31, and adhesive layer 35 laminated to a side of the base opposite the fastener elements 33, in order to provide "hook-and-loop type a bundling or strap fasteners" (col. 7, line 36) that are well known for their use in bundling articles together, such as bundling cables.

Claims 10 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969) in view of Takizawa et al. (U. S. Patent No. 5,537,720). Akeno et al. ('969) discloses the claimed fastener component except for wherein the tips extend toward the base. Takizawa et al. ('720) discloses a fastener component that has tips extending toward the base. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the fastener components of Akeno et al. ('969) to have their tips extending toward the base of the fastener component since Takizawa et al. ('720) makes it known in the fastener art to provide the feature of the tips extending toward the base of a fastener component when such fastener components are used in engaging loops 3 of a mating fastener component.

Art Unit: 3677


Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Sandy whose telephone number is 571-272-7073. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ROBERT J. SANDY
PRIMARY EXAMINER